

# Virginia Title V Operating Permit

Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-305 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Columbia Gas Transmission Corporation
Facility Name:	Loudoun Compressor Station
Facility Location:	Route 860, approximately 2 miles north of U.S. Route 50, vicinity of Gilbert's Corner Loudoun County, Virginia
Registration Number:	72265
Permit Number:	NVRO72265

February 18, 2000

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Effective Date

February 18, 2005

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Expiration Date

Dennis H. Treacy  
Director, Department of Environmental Quality

Signature Date

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## **I. Facility Information**

### **Permittee**

Columbia Gas Transmission Corporation  
P.O. Box 1273  
Charleston, WV 25325-1273

### **Responsible Official**

S.M. Wilner  
Vice President - Environmental Affairs

### **Facility**

Loudoun Compressor Station  
Route 860, approximately 2 miles north of U.S. Route 50, vicinity of Gilbert's Corner  
Loudoun County, Virginia

### **Contact person**

P. Michael Hoffman  
Environmental Engineer  
(304) 357-2548

**AIRS Identification Number:** 51-107-0125

**Facility Description:** SIC 4922 - Natural Gas Transmission. The Loudoun Compressor Station is a natural gas compressor station. Natural gas is received via gas pipelines from an upstream compressor station, compressed, and pumped into outlet pipes for transmissions to a downstream station. The natural gas is compressed using eight Solar Saturn T-1300 turbines, ISO rated at 1,350 horsepower (hp) each, and one Solar Centaur T-4500 turbine, ISO rated at 4,390 hp. All turbines are fired with natural gas.

## II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
06001	E01	Solar Saturn T-1300	21.2 MMBtu/hr <sup>1</sup>	---	---	---	February 18, 2000
06002	E02	Solar Saturn T-1300	21.2 MMBtu/hr <sup>1</sup>	---	---	---	February 18, 2000
06003	E03	Solar Saturn T-1300	21.2 MMBtu/hr <sup>1</sup>	---	---	---	February 18, 2000
06004	E04	Solar Saturn T-1300	21.2 MMBtu/hr <sup>1</sup>	---	---	---	February 18, 2000
06005	E05	Solar Saturn T-1300	21.2 MMBtu/hr <sup>1</sup>	---	---	---	February 18, 2000
06006	E06	Solar Saturn T-1300	21.2 MMBtu/hr <sup>1</sup>	---	---	---	February 18, 2000
06007	E07	Solar Saturn T-1300	21.2 MMBtu/hr <sup>1</sup>	---	---	---	February 18, 2000
06008	E08	Solar Saturn T-1300	21.2 MMBtu/hr <sup>1</sup>	---	---	---	February 18, 2000
06009	E09	Solar Centaur T-4500	58.4 MMBtu/hr <sup>2</sup>	---	---	---	February 18, 2000
060G1	G1	Waukesha F11GSI	221 horsepower	---	---	---	February 18, 2000

### NOTES:

<sup>1</sup> The listed rating of the Solar Saturn T-1300 turbines is the rating based on the higher heating value (HHV) heat rate of the fuel and maximum horsepower obtained while operating during periods of low ambient temperatures. The rating of each Solar Saturn T-1300 turbine based on the lower heating value (LHV) heat rate of the fuel at ISO standard conditions (288 °Kelvin, 60 percent relative humidity, and 101.3 kilopascals pressure) is 14.46 MMBtu/hr.

<sup>2</sup> The listed rating of the Solar Centaur T-4500 turbine is the rating based on the higher heating value (HHV) heat rate of the fuel and maximum horsepower obtained while operating during periods of low ambient temperatures. The rating of the Solar Centaur T-4500 turbine based on LHV heat rate of the fuel at ISO standard conditions is 39.72 MMBtu/hr.

### III. Requirements for Combustion Turbines (Emission Units 06001 through 06009)

#### A. Limitations

1. The approved fuel for each turbine is natural gas. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-10 and Condition 13 of 02/18/2000 Permit)
2. Nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC) emissions from the turbines shall be controlled by equipment design and operation. The turbines shall be provided with adequate access for inspection.  
(9 VAC 5-80-10 H and Condition 4 of 02/18/2000 Permit)
3. Fuel utilized for the turbines shall not contain sulfur in excess of 0.01 percent by weight.  
(40 CFR 60.333, 9 VAC 5-50-410 and Condition 5 of 02/18/2000 Permit)
4. The annual fuel throughput from each Solar Saturn T-1300 turbine shall not exceed  $101.3 \times 10^6$  cubic feet of natural gas, calculated as the sum of each consecutive 12-month period.  
(9 VAC 5-170-160 and Condition 6 of 02/18/2000 Permit)
5. The annual fuel throughput from the Solar Centaur T-4500 turbine shall not exceed  $278.4 \times 10^6$  cubic feet of natural gas, calculated as the sum of each consecutive 12-month period.  
(9 VAC 5-170-160 and Condition 7 of 02/18/2000 Permit)
6. Each turbine shall not operate more than 7,000 hours per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-170-160 and Condition 8 of 02/18/2000 Permit)
7. Emissions from the operation of each Solar Saturn T-1300 turbine shall not exceed the limitations specified below:

Sulfur Dioxide		0.2 lbs/hr	0.5 tons/yr
Nitrogen Oxides	76 ppmvd at 15% O <sub>2</sub> and ISO standard ambient conditions	5.4 lbs/hr	15.8 tons/yr
Carbon Monoxide		7.6 lbs/hr	22.5 tons/yr
Volatile Organic		0.3 lbs/hr	0.9 tons/yr

### Compounds

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period using actual turbine energy output in hp-hrs and DEQ approved pollutant-specific emission factors and equations.

(40 CFR 60.332(a)(2), 9 VAC 5-50-260, 9 VAC 5-80-110, and Condition 9 of 02/18/2000 Permit)

8. Emissions from the operation of the Solar Centaur T-4500 turbine shall not exceed the limitations specified below:

Sulfur Dioxide		0.5 lbs/hr	1.2 tons/yr
Nitrogen Oxides	142 ppmvd at 15% O <sub>2</sub> and ISO standard ambient conditions	26.2 lbs/hr	78.4 tons/yr
Carbon Monoxide		4.7 lbs/hr	14.0 tons/yr
Volatile Organic Compounds		0.2 lbs/hr	0.5 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period using actual turbine energy output in hp-hrs and DEQ approved pollutant-specific emission factors and equations.

(40 CFR 60.332(a)(2), 9 VAC 5-50-260, 9 VAC 5-80-110, and Condition 10 of 02/18/2000 Permit)

9. Visible emissions from each turbine exhaust stack shall not exceed five percent opacity.  
(9 VAC 5-170-160 and Condition 11 of 02/18/2000 Permit)
10. Turbine emissions shall be controlled by proper operation and maintenance. Operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum. The permittee shall have available good written operating procedures and a maintenance schedule for the turbines. These procedures shall be based on the manufacturer's recommendations, at a minimum.  
(9 VAC 5-80-110)

## B. Monitoring and Recordkeeping

1. Fuel monitoring for sulfur content shall be conducted as follows:

- a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are: ASTM D1072-80; ASTM D3031-81; ASTM D3246-81; and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2).
- b. The permittee shall monitor the sulfur content of the natural gas twice per annum during the first and third quarters of each calendar year. The semi-annual monitoring schedule shall be maintained as long as the monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with allowable permit conditions .
- c. Should any sulfur analysis as required in item b. above indicate noncompliance, the owner or operator shall notify the Air Compliance Manager, Northern Virginia Regional Office of such excess emissions and this custom schedule shall be re-examined by the Department. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
- d. If there is a change in fuel supply, the owner or operator must notify the Air Compliance Manager, Northern Virginia Regional Office, of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

(9 VAC 5-80-110, and Condition 16 of 02/18/2000 Permit)

2. Fuel monitoring of the nitrogen content, as specified by NSPS Subpart GG is waived.  
(9 VAC 5-50-410, 9 VAC 5-80-110 and Condition 15 of 02/18/2000 Permit)
3. As a component of the periodic monitoring plan, the permittee shall measure the concentration of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and oxygen (O<sub>2</sub>) in the exhaust gas stream from the Solar Centaur T-4500 gas turbine at least once every 6-month period beginning with the effective date of this permit. NO<sub>x</sub> emissions shall represent the combined measured emissions of NO and NO<sub>2</sub>, and shall be reported collectively as NO<sub>2</sub>. NO<sub>x</sub> emissions shall be reported in units of parts per million, dry volume, corrected to 15 percent O<sub>2</sub> and pounds of NO<sub>x</sub> per hour (as NO<sub>2</sub>). CO emissions shall be reported in units of parts per million, dry volume, corrected to 15 percent O<sub>2</sub>, and pounds of CO per hour. The testing shall be conducted using test methods and procedures approved in advance by DEQ. The details of the tests are to be arranged with the Air Compliance Manager, Northern Virginia Regional Office.



(9 VAC 5-80-110 E)

4. As a component of the periodic monitoring plan, the permittee shall measure the concentration of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and oxygen (O<sub>2</sub>) in the exhaust gas stream from each of the eight Solar Saturn T-1300 gas turbines at least once every 12-month period beginning with the effective date of this permit. NO<sub>x</sub> emissions shall represent the combined measured emissions of NO and NO<sub>2</sub>, and shall be reported collectively as NO<sub>2</sub>. NO<sub>x</sub> emissions shall be reported in units of parts per million, dry volume, corrected to 15 percent O<sub>2</sub> and pounds of NO<sub>x</sub> per hour (as NO<sub>2</sub>). CO emissions shall be reported in units of parts per million, dry volume, corrected to 15 percent O<sub>2</sub>, and pounds of CO per hour. The testing shall be conducted using test methods and procedures approved in advance by the DEQ. The details of the tests are to be arranged with the Air Compliance Manager, Northern Virginia Regional Office.  
(9 VAC 5-80-110 E)
5. The permittee shall document all process parameters necessary to determine turbine performance with respect to the emission limits and standards of this permit during the periodic emissions testing on each turbine conducted in accordance with Condition III.B.3 and Condition III.B.4. At a minimum, the following process parameters shall be monitored and recorded for each test:
  - a. the work performed by the turbine tested, measured or reported in horsepower (hp);
  - b. the average exhaust gas volumetric flowrate per stack;
  - c. the amount of fuel consumed by the turbine during the emissions measurement;
  - d. other information necessary to determine emission factors for the turbine;
  - e. actual duration of the measurement.

(9 VAC 5-80-110 E)

6. As determined in accordance with Conditions III.B.3 or III.B.4, if the measured emission rate of NO<sub>x</sub> or CO exceeds the emission standard for the respective pollutant, the permittee shall:
  - a. Verify that the turbine(s) is operating according to manufacturer's specifications, or other predetermined site-specific acceptable operating conditions. If a turbine is not operating properly, the permittee shall take corrective action immediately to reduce emissions to or below the emission standard. The permittee shall document pollutant emission rates within one

week of applying corrective action to a turbine by measuring the concentration of pollutant(s) in the turbine exhaust gases. The measurement shall be conducted in accordance with procedures in either Condition III.B.3 or Condition III.B.4 of this permit, or other procedures approved in advance by the Air Compliance Manager, Northern Virginia Regional Office.

- b. If the corrective action in Condition III.B.6.a above does not rectify the emission excursion, the permittee shall conduct a compliance test for the specific pollutant(s) of concern within 30 days of completing the corrective action on the turbine. The compliance testing shall be conducted in accordance with approved EPA reference methods as presented in Condition III.C.2 of this permit, or other procedures approved in advance by the Air Compliance Manager, Northern Virginia Regional Office.

(9 VAC 5-80-110 E)

- 7. Emissions data collected in accordance with Condition III.B.3 and/or Condition III.B.4 which shows an exceedance of the applicable emission standard may be considered credible evidence of a violation of this permit.  
(9 VAC 5-80-110)
- 8. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Air Compliance Manager, Northern Virginia Regional Office. These records shall include, but are not limited to:
  - a. the annual hours of operation of each turbine, calculated monthly as the sum of each consecutive 12-month period;
  - b. the annual fuel consumption (in cubic feet) for each turbine, calculated monthly as the sum of each consecutive 12-month period;
  - c. the annual energy output for each turbine in Hp-hrs, calculated monthly as the sum of each consecutive 12-month period;
  - d. fuel sulfur analyses;
  - e. the periodic NO<sub>x</sub>, CO, and O<sub>2</sub> measurements for the gas turbines;
  - f. the DEQ approved, pollutant-specific emission factors and the equations used to demonstrate compliance with Conditions III.A.7 and III.A.8.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110, Specific Condition 14 and General Condition 4 of 02/18/2000 Permit)

9. The permittee shall maintain records of the required turbine operator training including a statement of time, place and nature of training provided. In addition, the permittee shall maintain records of all scheduled and unscheduled maintenance on the turbines. These records shall be kept on site for a period of five years and shall be made available for inspection by the DEQ upon request.  
(9 VAC 5-80-110)

### C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.  
(9 VAC 5-50-30, 9 VAC 5-80-110 and General Condition 3 of 02/18/2000 Permit)
6. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
NO <sub>x</sub>	EPA Method 20, 7, 7E
SO <sub>2</sub>	EPA Method 20, 6, 6C, or 8
CO	EPA Method 10
VOC	EPA Methods 18, 25, 25a
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

### D. Reporting

1. Reporting of emission excursions above an applicable emission standard shall be conducted in accordance with the permit deviation reporting procedures in Conditions VII.E. In addition, two copies of the test results from any compliance testing performed as a result of an emissions excursion shall be provided to the Air

Compliance Manager, Northern Virginia Regional Office, of the DEQ within 30 days of conducting the test.  
(9 VAC 5-80-110)

2. The general requirements and procedures set forth in Section VII, Conditions C. through F. of this permit shall be followed with respect to reporting requirements for the gas turbines.  
(9 VAC 5-80-110)

## IV. Requirements for Auxiliary Generator (Emission Unit 060G1)

### A. Limitations

1. The approved fuel for the auxiliary generator is natural gas. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-170-160, 9 VAC 5-80-110 and Condition 5 of the 02/18/2000 Permit)
2. The auxiliary generator shall consume no more than 1.91 million cubic feet of natural gas per year, calculated as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-170-160, 9 VAC 5-80-110 and Condition 7 of the 02/18/2000 Permit)
3. Emissions from the operation of the auxiliary generator shall not exceed the limitations specified below:

Nitrogen Oxides (as NO <sub>2</sub> )	3.9 lbs/hr	2.0 tons/yr
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Carbon Monoxide	14.9 lbs/hr	7.5 tons/yr
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Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period using actual engine energy output in hp-hrs and DEQ approved pollutant-specific emission factors and equations.

(9 VAC 5-50-260, 9 VAC 5-80-110 and Condition 9 of the 02/18/2000 Permit)

4. The auxiliary generator shall not operate more than 1000 hours per year, calculated as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-170-160, 9 VAC 5-80-110 and Condition 8 of the 02/18/2000 Permit)
5. Visible emissions from the auxiliary generator shall not exceed 5 percent opacity, as determined by EPA method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times, except during startup, shutdown and malfunction.  
(9 VAC 5-170-160, 9 VAC 5-50-20, 9 VAC 5-80-110 and Condition 10 of the 02/18/2000 Permit)
6. The NO<sub>x</sub> emissions from the auxiliary generator shall be controlled by maintaining and operating the generator under a "best power" air to fuel (A/F) ratio setting. A "best power" A/F ratio setting for the generator shall be defined as proper adjustment of the engine mounted gas regulator, while under full load operation, such that a pressure differential of 10 to 12 inches of water is observed between the carburetor fuel inlet pipe and the carburetor air horn. The "best power" operation of the generator shall be maintained by periodic A/F ratio adjustment of the gas regulator at a frequency of no less than once every spring.

(9 VAC 5-50-260, 9 VAC 5-80-10 H, and Condition 3 of 02/18/2000 Permit)

7. The permittee shall have available written operating procedures for maintaining the generator at a "best power" A/F ratio setting. Operators shall be trained in the proper operation of all such equipment and shall be familiar with the written operating procedures. These procedures shall be based on the manufacturer's recommendations, at minimum.

(9 VAC 5-170-160, 9 VAC 5-80-110, and Condition 17 of 02/18/2000 Permit)

8. A differential pressure gauge with the appropriate fittings to connect between the generator's carburetor fuel inlet pipe and the carburetor air horn shall be kept on site at all times.

(9 VAC 5-50-30, 9 VAC 5-80-110, and Condition 6 of 02/18/2000 Permit)

## **B. Monitoring and Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance. The content of and format of such records shall be arranged with the Air Compliance Manager, Northern Virginia Regional Office. These records shall include, but are not limited to:
  - a. The annual consumption of natural gas by the auxiliary generator, calculated as the sum of each consecutive 12-month period.
  - b. The number of hours of annual operation of the auxiliary generator, calculated as the sum of each consecutive 12-month period.
  - c. The DEQ approved, pollutant-specific emission factors and the equations used to demonstrate compliance with Condition IV.A.3 of this permit.
  - d. A log of the periodic A/F ratio adjustments and differential pressure readings to demonstrate compliance with Condition IV.A.6 of this permit.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 12 of 02/18/2000 Permit)

2. In order to minimize the duration and frequency of excess emissions due to malfunctions of process equipment or air pollution control equipment, the permittee shall:
  - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance. These records shall be maintained on site for a

period of five (5) years and shall be made available to DEQ personnel upon request.

- b. Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment breakdown.

(9 VAC 5-170-160, 9 VAC 5-80-110 and Condition 16 of 02/18/2000 Permit)

3. The permittee shall maintain records of the required auxiliary generator operator training including names of trainees, date of training and nature of training. These records shall be kept on site and made available for inspection by the DEQ.  
(9 VAC 5-170-160, 9 VAC 5-80-110, and Condition 17 of 02/18/2000 Permit)

### C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.  
(9 VAC 5-50-30, 9 VAC 5-80-110, and Condition 6 of 02/18/2000 Permit)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
NO <sub>x</sub>	EPA Method 7, 7E
CO	EPA Method 10
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

## V. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation (9 VAC_)	Pollutant(s) Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
Blr2	Boiler #2, Natural Gas-fired Heating System Boiler	9 VAC 5-80-720 C	---	1 MMBtu/hr
A01	Lube Oil Tank	9 VAC 5-80-720 B	VOC	---
A02	Water Mixture Tank #1 (Wastewater)	9 VAC 5-80-720 B	VOC	---
B01	Water Mixture Tank #2 (Wastewater)	9 VAC 5-80-720 B	VOC	---
TP24	Water Mixture Tank #3 (Wastewater)	9 VAC 5-80-720 B	VOC	---

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.



## VI. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60, Subpart GG 60.334	New Source Performance Standards-Standards of Performance for Stationary Gas Turbine	The nitrogen monitoring requirements of this section have been waived in accordance with 08/14/87 EPA Policy memorandum.

Nothing in this permit shield shall alter the provisions of § 303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to § 114 of the federal Clean Air Act, (ii) the Board pursuant to § 10.1-1314 or § 10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to § 10.1-1307.3 of the Virginia Air Pollution Control Law.  
(9 VAC 5-80-140)

## **VII. General Conditions**

### **A. Federal Enforceability**

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-110 N)

### **B. Permit Expiration**

This permit shall become invalid five years from the date of issuance. The permittee shall submit an application for renewal of this permit no earlier than 18 months and no later than six months prior to the date of expiration of this permit. Upon receipt of a complete and timely application for renewal, this source may continue to operate subject to final action by the DEQ on the renewal application.

(9 VAC 5-80-110 D and 9 VAC 5-80-80 F)

### **C. Recordkeeping and Reporting**

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
  - a. The date, place as defined in the permit, and time of sampling or measurements.
  - b. The date(s) analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses.
  - f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
  - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
  - b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:
    - (1) exceedance of emissions limitations or operational restrictions;
    - (2) excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or
    - (3) failure to meet monitoring, record-keeping, or reporting requirements contained in this permit.

(9 VAC 5-80-110 F)

#### **D. Annual Compliance Certification**

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit, or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to § 114(a)(3) and § 504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.
4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)  
U.S. Environmental Protection Agency, Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

#### **E. Permit Deviation Reporting**

The permittee shall notify the Director, Northern Virginia Regional Office, within four daytime business hours of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the occurrence, the permittee shall provide a written statement explaining the problem, any corrective actions or preventive measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to general condition VII.C.3. of this permit.  
(9 VAC 5-80-110 F.2, 9 VAC 5-80-250)

#### **F. Failure/Malfunction Reporting**

If, for any reason, the affected facilities or related air pollution control equipment fails or malfunctions and may cause excess emissions for more than one hour, the owner shall notify the Director, Northern Virginia Regional Office, within four (4) daytime business hours of the occurrence. In addition, the owner shall provide a written statement, within 14 days, explaining the problem, corrective action taken, and the estimated duration of the breakdown/shutdown.  
(9 VAC 5-20-180 and 9 VAC 5-80-250)

#### **G. Severability**

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.  
(9 VAC 5-80-110 G.1)

## **H. Duty to Comply**

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(9 VAC 5-80-110 G.2)

## **I. Need to Halt or Reduce Activity not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(9 VAC 5-80-110 G.3)

## **J. Permit Action for Cause**

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause as specified in 9 VAC 5-80-110 L, 9 VAC 5-80-240 and 9 VAC 5-80-260. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.  
(9 VAC 5-80-110 G.4)
2. Such changes that may require a permit modification and/or revisions include, but are not limited to, the following:
  - a. Erection, fabrication, installation, addition, or modification of an emissions unit (which is the source, or part of it, which emits or has the potential to emit any regulated air pollutant), or of a source, where there is, or there is the potential of, a resulting emissions increase;
  - b. Reconstruction or replacement of any emissions unit or components thereof such that its capital cost exceeds 50% of the cost of a whole new unit;
  - c. Any change at a source which causes emission of a pollutant not previously emitted, an increase in emissions, production, throughput, hours of operation, or fuel use greater than those allowed by the permit, or by 9 VAC 5-80-11, unless such an increase is authorized by an emission cap; or any change at a source which causes an increase in emissions resulting from a reduction in control efficiency, unless such an increase is authorized by an emissions cap;
  - d. Any reduction of the height of a stack or of a point of emissions, or the addition of any obstruction which hinders the vertical motion of exhaust;

- e. Any change at the source which affects its compliance with conditions in this permit, including conditions relating to monitoring, recordkeeping, and reporting;
- f. Addition of an emissions unit which qualifies as insignificant by emissions rate (9 VAC 5-80-720 B) or by size or production rate (9 VAC 5-80-720 C);
- g. Any change in insignificant activities, as defined by 9 VAC 5-80-90 D.1.a(1) and by 9 VAC 5-80-720 B and 9 VAC 5-80-720 C.

(9 VAC 5-80-110 G, 9 VAC 5-80-110 J, 9 VAC 5-80-240, and 9 VAC 5-80-260)

#### **K. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege.  
(9 VAC 5-80-110 G.5)

#### **L. Duty to Submit Information**

- 1. The permittee shall furnish to the board, within a reasonable time, any information that the board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the board along with a claim of confidentiality.  
(9 VAC 5-80-110 G.6)
- 2. Any document (including reports) required in a permit condition to be submitted to the board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.  
(9 VAC 5-80-110 K.1)

#### **M. Duty to Pay Permit Fees**

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-305 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.  
(9 VAC 5-80-110 H, 9 VAC 5-80-340 C.)

#### **N. Fugitive Dust Emission Standards**

During the operation of a stationary source or any other building, structure, facility or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited, to the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
  2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
  3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
  4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and
  5. The prompt removal of spilled or traced dirt or other materials from paved streets and of dried sediments resulting from soil erosion.
- (9 VAC 5-40-90)

#### **O. Startup, Shutdown, and Malfunction**

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-40-20)

#### **P. Alternative Operating Scenarios**

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80 Article 1.

(9 VAC 5-80-110 J)

## **Q. Inspection and Entry Requirements**

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

## **R. Reopening For Cause**

The permit shall be reopened by the board if additional federal requirements become applicable to a major source with a remaining permit term of three or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
2. The permit shall be reopened if the administrator or the board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
3. The permit shall not be reopened by the board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

## **S. Permit Availability**



Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.  
(9 VAC 5-80-150 E)

#### **T. Transfer of Permits**

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.  
(9 VAC 5-80-160)
2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)
3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)

#### **U. Malfunction as an Affirmative Defense**

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the conditions of paragraph 2 are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
  - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
  - b. The permitted facility was at the time being properly operated.
  - c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
  - d. For malfunctions that occurred for one hour or more, the permittee submitted to the board by the deadlines described in **Failure/Malfunction Reporting** above, a notice and written statement containing a description of the malfunction, any steps taken to mitigate emissions, and corrective actions

taken. The notice fulfills the requirement of 9 VAC 5-80-110 F.2. b to report promptly deviations from permit requirements.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.

(9 VAC 5-80-250)

#### **V. Permit Revocation or Termination for Cause**

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The board may suspend, under such conditions and for such period of time as the board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-260)

#### **W. Duty to Supplement or Correct Application**

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-80 E)

#### **X. Stratospheric Ozone Protection**

If the permittee handles or emits one or more Class I or II substance subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(40 CFR Part 82, Subparts A - F)

#### **Y. Accidental Release Prevention**

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.

(40 CFR Part 68)

#### **Z. Changes to Permits for Emissions Trading**

No permit revision shall be required, under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.  
(9 VAC 5-80-110 I)

#### **AA. Emissions Trading**

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110 except subsection N shall be included to determine compliance.
2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)